Title: Exploring the evidence-practice gap: mixed and participatory training for HIV prevention in southern Africa

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Abstract

Background: The gap between what is known and what is done about public health (the evidence-practice gap) needs addressing. One solution may be through mixed and participatory training in accessing and appraising research.

Approach: Residential workshops trained policy-makers, practitioners and researchers from seven southern-African countries in evidence-based decision-making for HIV prevention. They included training in accessing, critiquing and summarizing research, whilst remaining responsive to the priorities of the participants.

Reflections: Drawing on the participants' feedback and our observations, we reflected on how these workshops may have addressed the evidence-practice gap. We identified three areas: access to research, understanding of research, and the relevance of research. The workshops enabled a small group of people to access relevant research in a timely manner. However, more needs to be done to disseminate research findings appropriately as any long-term impact will be affected by the political and economic context in which participants work. We are confident that the participants went away with increased understanding of the purposes and processes of research, but for research to make a difference, the research community needs to emphasise more the publication of research findings written for potential users. The workshops were most successful in influencing researchers to consider bridging the evidence-practice gap by producing more relevant research, applicable to policy-makers and practitioners.

Conclusion: This intensive intervention has the potential to reduce the evidence-practice gap for HIV prevention in southern Africa by training non-researchers to engage with research whilst providing an opportunity for researchers to engage with policy-makers and practitioners.

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Background

The Evidence-Practice Gap

Large scale problems in public health[1] call for innovation (Campbell & Cornish, 2003): changes in services to address new needs; service providers with better access to, and understanding of, research evidence about addressing those needs; and, fundamentally, up-to-date evidence relevant to health problems. These innovations offer different approaches to closing the gap between what is known (i.e. about a problem and how to deal with it), and what is done (i.e. how services are currently addressing the problem) – the 'evidence-practice gap'.

Much of the literature about the evidence-practice gap focuses on change management, and falls under the remit of GRIP (Getting Research Into Practice) programmes (Haines & Donald, 2001). GRIP techniques include: developing educational materials for practitioners; organising conferences where researchers and practitioners can share their different perspectives; undertaking consensus development with researchers and practitioners; lobbying local opinion leaders to adopt research-based practice; using research-informed reminders to prompt changes in practice; and multifaceted interventions that use a range of techniques (Grimshaw et al., 2001). Most of these techniques assume that the research evidence involved is relevant, reliable and provides a clear indication of how services could be improved. One technique that does not make this assumption involves developing 'evidence-based guidelines', for which appraising the relevance and reliability of the research evidence is part and parcel of the process (Shekelle *et al.*, 1999).

The critical appraisal of research evidence is traditionally undertaken by professional researchers with skills in research synthesis. An alternative approach involves giving service

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providers the evidence and the skills to assess its relevance and reliability (Colquhoan & Bunday, 1981; Oliver *et al.*, 1998; Oliver *et al.*, 2001a). This approach helps to address a general reluctance on the part of health care providers to adopt evidence-based policy and practice: we know that health promotion specialists often rely on the opinions of a small circle of professionals rather than on published information about the effectiveness of health promotion (Shadish & Epstein, 1987; Bonell, 1996; Oliver *et al.*, 2001b). Even where training has improved service providers' and commissioners' skills, putting these skills into practice is constrained by a lack of time and resources, such as access to relevant and reliable evidence in the workplace (Oliver *et al.*, 2001b). Health promotion specialists have even expressed antipathy towards sources of reliable evidence of effectiveness. They perceive it to be narrow and lacking relevance to the social, emotional and functional aspects of people's lives. This perception is a fundamental barrier to getting evidence into practice. Involving practitioners and potential service users in guiding research itself is one possible solution (Oliver, 2001).

Bridging the gap

Mixed and participatory research and training[2] is one approach for involving practitioners' (and practitioners' perspectives) in turning research into practice. The participatory approach seeks to bring together 'professionals' with the views and experiences of other constituencies (such as 'communities', 'service users', 'policy-makers' and 'service commissioners'; (de Konning & Martin, 1996), to facilitate critical thinking for developing shared solutions (Acharaya & Verma, 1996). Mixed-working can help to cross boundaries between different constituencies, enabling them to share perspectives, experiences and ideas (Tomcsanyi, 2000), and potentially establishing new and shared understanding (Pirrie et al., 1998).

The evidence-based approach provides many examples of training and research that are mixed and participatory. Different groups are brought together, encouraged to engage with

2 'Mixed training' includes people from different sectors, roles or professions. 'Participatory training' involves recipients in its design, content, delivery or evaluation.

research, and offered training in appraising research critically. Indeed, the evidence-based approach may itself provide a solution to the evidence-practice gap for major public health issues, offering a model in which research evidence is located, filtered, and synthesized transparently and systematically, using an agreed framework to consistently identify relevant and effective interventions.

HIV/AIDS in southern Africa

The HIV/AIDS epidemic is one public health crisis for which solutions are urgently sought. There are estimated to be 26.6 million people living with HIV/AIDS in sub-Saharan Africa and millions more affected by the disease (UNAIDS, 2003). This has far reaching implications for family life, health, education, the economy and political stability throughout the region. In response, in 2003 alone, US$ 4.7 billion was made available by the international community for HIV/AIDS-related development work (The World Bank, 2003). Research has mushroomed with over 40 journals now dedicated to HIV/AIDS.

Critical appraisal skills workshops for clinicians and managers have addressed the evidence-gap in terms of educating potential users of research. Mixed and participatory training in the evidence-based approach can also provide an opportunity to explore the evidence-gap from different perspectives. HIV/AIDS is a particularly appropriate topic for such an exploratory approach because of the urgency and scale of the problem it poses.

This paper provides a reflective description of mixed and participatory training in the evidence-based approach designed to bridge the evidence-practice gap for HIV prevention in southern Africa.[3]

3 The workshop report (Stewart, 2001) and training manual (Ellison *et al.*, 2001) are available at http://hivsa.ioe.ac.uk/hivsa/.

The HIVSA workshops – Design and Content

Aims

The HIV in Southern Africa project (HIVSA) focused on decision-making and educational interventions for HIV prevention in southern Africa. It aimed to:

- develop and deliver participatory workshops to support evidence-informed decision-making;
- develop a web-based register of published and unpublished evidence drawn from studies based in southern Africa; and
- use the register to review this evidence systematically.

Participants

Participants from seven southern African countries[4] in two groups brought varied skills and experience such as teaching, nursing, research and management to the workshops. The groups were selected to include policy-makers (6), practitioners (10) and researchers (10) from both public and private health and education sectors working in HIV prevention. They attended three week-long residential workshops in Johannesburg during 2001. The workshop facilitators were four researchers based in London, three of whom had experience of living and working in southern Africa.

Delivery of workshops

The workshops covered processes involved in evidence-informed decision-making (see Table 1). Whilst the broad content for each workshop was predetermined, the precise details of each day were under constant revision in order to respond to the needs and priorities of the participants. Delivery methods included: short didactic sessions, individual and pair tasks, small-group activities and whole-group discussions. Over the three workshops, the participants designed and completed systematic syntheses of appraised research evidence to inform decisions they faced

4 Zambia, Zimbabwe, South Africa, Tanzania, Swaziland, Lesotho and Mozambique

in their work. We held feedback sessions at the end of each day in addition to daily and weekly feedback forms. Evaluation forms were read each evening and training materials were developed and refined accordingly.

(Insert Table 1 about here)

Reflection

To reflect on these workshops, we returned to an analysis of participants' feedback forms (Stewart, 2001), and our personal observations (RS co-ordinated the workshops, GE, MW, JT and RS delivered training; SO and GB contributed to the workshop design). Through discussion we refined these reflections, challenging one another to ensure we achieved a balanced consensus.

How the HIVSA workshops addressed the evidence-practice gap

We identified three areas in which we believe the HIVSA workshops may have helped to bridge the evidence-practice gap: access to research; understanding research; and the relevance and application of research to practice.

1. Access to research

The HIVSA workshops aimed to improve participants' awareness of the research evidence available, and address their concerns that accessing this research was time-consuming and required extra resources and specialist skills. Success in this regard was varied: we provided training in where to look for research and how to do so efficiently, using electronic databases, hand-searching and contacting experts. For some participants, searching the internet was a new experience, and those with basic information technology (IT) skills needed additional support. Indeed, some participants were unable to master electronic searching in the time available, although they quickly gained valuable e-mail and internet skills. Those who mastered online electronic searching were

surprised by the number of studies available.

The workshops provided training in distinguishing relevant and reliable (i.e. high-quality) research. The participants embraced the concept of accepting only the most relevant research, and appreciated the time this would save. The workshops benefited from the expertise of the policy-makers and practitioners when identifying research that was relevant. However, those without prior research training found determining the quality of research much more difficult than identifying its relevance. By teaching participants to access systematic reviews of high-quality research, we went some way towards addressing this difficulty. All the participants welcomed the time saved by accessing such summaries rather than the original research reports.

At the start of the workshops, participants voiced a concern about the availability of published southern African literature on HIV prevention; this was confirmed by the results of the electronic searches they undertook. In response, we encouraged the participants to identify and collect copies of published and unpublished literature describing relevant research from their home countries. The resulting collection of 280 pieces of literature on HIV prevention, including academic and professional articles located by electronic searching, was then made available to participants during the subsequent workshops.

Researchers, policy-makers and practitioners all highlighted their lack of communication with each other as a barrier to the accessibility of research. Whilst we were unable to influence the wider community, the workshops enabled the development of informal networks amongst the policy-makers, practitioners and researchers who attended. Several participants have maintained links with workshop facilitators since the workshops ended. These networks across southern Africa were further facilitated by the increased use of email resulting from IT skills developed during the workshops.

Summary

On reflection, the HIVSA workshops improved the skills and confidence of a small group of people in accessing relevant research in a timely manner. Given the restrictions of the political and economic context within which the participants work, we recognise that this may have a limited impact on the accessibility of research in general. Those whose access to research was most improved were those who had relatively unproblematic access to the internet and libraries. Clearly, more needs to be done by the research community itself to disseminate research findings in a more effective manner.

2. Understanding research

The workshops were designed to increase participants' understanding of, and familiarity with, research and related skills for producing evidence-based summaries that were easier to comprehend.

Initially, some workshop participants were frustrated with research, and were unclear about its importance, wanting immediate answers to decisions faced in their work. Whilst underlining the importance of applying good quality research to practice, the workshops highlighted: both the strengths *and* limitations of research; that good research takes time; that appropriate research methodologies need to be rigorously applied; and that research needs to be thoroughly and transparently reported. Following the workshops, all participants acknowledged the value of research and expressed a greater understanding of the processes involved. However, some participants working under the pressure of the HIV pandemic and needing immediate answers to practical problems remained frustrated with the research process.

The training in research methods was designed to give the participants the confidence and the familiarity with research terminology to communicate with researchers, and the means to challenge 'expert' opinion. Over the workshops we observed substantial changes in the contributions of

hitherto non-research-literate participants when discussing research. For example, following the first workshop, one participant reported challenging a speaker at an international conference as to what evidence supported their assertions.

Participants often expressed frustration about how research findings are presented, excluding a non-research audience through the use of technical language. We provided examples of research syntheses written especially for non-research audiences and encouraged participants to write similar syntheses of the evidence from southern Africa. In the process, participants from research backgrounds, as well as the workshop facilitators, developed a greater awareness of how to present research findings for policy-makers and practitioners. To help overcome the apprehension participants described when faced by a lengthy research report, during the workshops we developed a short checklist of five questions to help them assess the relevance and quality of the research quickly. Whilst this 'mini appraisal tool' was less rigorous and comprehensive than those used by researchers, participants felt this was more practical and more likely to be used.

Summary

We are confident that the participants left with increased knowledge and understanding of the purposes and processes of research. However, this was as a result of three weeks of residential workshops. We acknowledge that such an intensive intervention is unlikely to be adopted wide-scale. Workshop participants highlighted the need for the research community to value and emphasise the publication of findings for non-researchers.

3. Relevance and application of research to practice

Policy-makers and practitioners at the HIVSA workshops observed that the scope of available research on HIV is often too narrow to be relevant in their work. Indeed they even questioned the foundation of the HIVSA project with its focus on educational interventions for HIV

prevention. Instead, they stressed the importance of integrated prevention, care and treatment across health, social care and education. However, workshop discussions allowed participants to engage with research, and allowed researchers to hear the views of policy-makers and practitioners.

Through electronic searching, participants were able to see a much larger amount of the research available. We provided research training to help them identify and discard irrelevant research, and research that is poorly reported or too difficult to understand. The participants acknowledged that there was more research available than they had previously thought. Whilst some participants were skeptical about the relevance of research from outside southern Africa and research adopting predominantly quantitative biomedical approaches, they realized that they could draw some lessons even from research that, at first, seemed irrelevant.

In carrying out systematic searches and listening to participants, we agreed that there is a need for researchers to engage actively with policy and practice in order to generate more useable research. The workshops provided a forum increasing our collective awareness of priorities in terms of policy and practice needs and research rigour. The workshop structure also provided an opportunity for policy-makers and practitioners to discuss key issues they faced in their work. This was highlighted when the facilitators attempted to paraphrase the questions participants developed for their research syntheses – the participants insisted on debating the wording until it correctly reflected their priorities not the facilitators' expectations.

Summary

With regards the relevance and application of research the workshops were more successful in influencing the researchers in trying to bridge the gap. We observed a shift in the attitudes of researchers as they recognised that, to be useful, their research needed to answer questions that are important to policy-makers and practitioners. More work is needed to ensure that those that commission research also make this shift.

Conclusion

Although these workshops appeared to reduce the evidence-practice gap for HIV prevention in southern Africa, it was a particularly intensive intervention for a select few. Access to the internet and research libraries presents additional structural barriers to practitioners, policy-makers *and* researchers within low income countries. However, the workshops provided an opportunity for researchers to engage with policy-makers and practitioners and to identify how research and the dissemination of research, might be made more relevant to potential users. These findings, and the opportunities they opened up for participants, were a direct result of the mixed, participatory design of the workshops.

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Tables

Table 1: HIVSA workshop: designed to match the steps in preparing a systematic review

Workshop 1 focused on: • disentangling the decision-making process; • identifying areas of uncertainty; • selecting the most appropriate type(s) of evidence for addressing different sources of uncertainty; • identifying key topics relevant to participants' work; and • designing time-efficient search strategies for accessing written evidence to address these topics.
➔ *Following Workshop 1, participants and facilitators searched for and collected written evidence for consideration during Workshop 2.*
Workshop 2 focused on: • developing criteria for identifying relevant and high-quality evidence to explore participants' topics of interest; • sifting through the collected literature applying these criteria; and • developing a framework for extracting key information from sifted evidence.
➔ *Following Workshop 2, participants and facilitators practiced these skills applying the framework to the collected evidence. The data collected from this process was entered onto the HIVSA register of evidence by the facilitators.*
Workshop 3 focused on: • developing refined/discrete practice-based research synthesis questions in small groups; • analysing data available on the HIVSA register of evidence to address these questions; • producing structured summaries of the most relevant studies; and

- using these summaries to create syntheses of relevant and high-quality evidence enabling to help each group answer its question.